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ROCKETRY

The invention of solid propellant rocketry is generally credited to 11th century China. The invention of liquid propellant rockets came to the United States in 1926 and have played an important role in space research. Most rockets capable of carrying satellites to space and every rocket used to carry astronauts into space have relied upon liquid propellant engines. The combustion changer of a liquid propellant rocket is a bottle-shaped container with openings at opposite ends. The openings at the top inject the propellants into the chamber. Each opening consists of a small nozzle that injects either fuel or oxidizer. The main purpose of the injectors is to mix the propellants to insure smooth and complete combustion and no detonations. Propellants for liquid rockets normally fall into two categories: Monopropellants and bipropellants. Monopropellants consist of a fuel and an oxidizing agent stored in one container. Bipropellants have the fuel and oxidizer separate from each other until they are mixed in the combustion chamber. Propellant density affects the total thrust of the propellants because of Newton's Second Law of Motion. That law states that "force equals mass times acceleration."